APPENDIX I – PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT ADDENDUM SAMPLE

Phase I Environmental Site Assessment Report Addendum

[Site Designation]
[Site Address or Major Cross Streets]
[City], California [Zip Code]
[Site Code]

Prepared for:
[School District]
[District Office Address]
[City], California [Zip Code]

Prepared by:
[Consultant Company]
[Office Address]
[City], California [Zip Code]

[Date of Report]

EXECUTIVE SUMMARY

The executive summary should summarize the main information presented in the Phase I Report Addendum. It should include, but not be limited to, the following information:

- Purpose of the Phase I Environmental Assessment Addendum report
  - Identification of the recognized environmental concerns being addressed, limited to lead-based paint, termiticide application, and/or electrical transformers. The areas of concern should be based on recognized environmental concerns identified in the Phase I report or after review of information consistent with a Phase I.
- School district
- Site designation consistent with information submitted to the California Department of Education
- Site location
  - Street address or nearest cross streets
  - City and county
- Site description
  - Size of the site (preferably in acres)
  - Current and historical business activity conducted on site
- Type of school site – proposed, expansion, or existing
- Type of school proposed – grade levels of students
- Number of classrooms and students
- Intended use of the site – whether all or a portion of the site will be used
- Summary of results compared to screening values
- Conclusions
- Recommendations

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Appendix I Health and Safety Plan

ABBREVIATIONS AND ACRONYMS

Abbreviation or acronym | Description

1.0 INTRODUCTION

The introduction should introduce the site, present the organization of the report, and include the following information:

- School district
- Site designation consistent with information submitted to the California Department of Education
- Site location
    - Street address or nearest cross streets
    - City and county
- Type of school site – proposed, expansion, or existing
- Type of school proposed – grade levels of students
- Number of classrooms and students
- Intended use of the site – whether all or a portion of the site will be used
- Proposed disposition of existing structures
- Proposed source of potable and non-potable water supply

The introduction should also identify the reason for preparing a Phase I Addendum report. The reason stated should clarify whether the school district:

- Submitted a Phase I report previously for DTSC review and approval and DTSC provided a determination that lead-based paint, termiticide application, or electrical transformers are the only recognized environmental conditions, further investigation is required, and investigation findings may be submitted in a Phase I Addendum.
- Proceeded with sampling for lead, organochlorine pesticides (OCPs), or polychlorinated biphenyls (PCBs) based on the conclusions of a Phase I report that lead-based paint, termiticide application, or electrical transformers are the only recognized environmental conditions and further investigation is recommended. As a result, this Phase I Addendum report is being submitted as an appendix to the Phase I report.

The reason should also clarify the findings (reference the specific source of information) leading to the recommendation for further investigation, for example:

- Based on the findings of the Phase I report (specify the source of information in the Phase I), commercial, industrial, residential (constructed before January 1, 1979), school (constructed before January 1, 1993) structures on site (currently or historically) may have surfaces coated with lead-based paint that may have been released to the environment.

- Based on the findings of the Phase I report (specify the source of information in the Phase I), electrical transformers installed before January 1, 1979 on site (currently or historically) may contain PCBs that may have been released to the environment.
- Based on the findings of the Phase I report (specify the source of information in the Phase I), termiticides may have been applied to structures on site with wood components constructed before January 1, 1989. OCP residues from termiticide application may be present in the soil around and beneath these structures.

If DTSC provided a determination that lead-based paint, termiticide application, or electrical transformers are the only recognized environmental conditions and further investigation is required based on review and approval of a Phase I report, provide the date of the determination letter and include a copy of the letter in Appendix A of the Phase I Addendum report.

1.1 PURPOSE

This section should state the purpose of the Phase I Addendum, part of the first step of the environmental review process for school sites, which may include the following:

- Determine whether there has been or may have been a release of lead to soil from lead-based paint, OCPs to soil from termiticide application, or PCBs to soil from electrical transformers.
- Determine if concentrations of lead, OCPs, or PCBs in soil exceed concentrations protective of human health and the environment.

This section may also include other objectives or reasons as requested by the school district.

1.2 SCOPE OF WORK

The scope of work should provide a detailed scope of services conducted for the Phase I Addendum, including assumptions, limitations and exceptions, special terms and conditions, and user reliance.

This section should list the requirements or standards complied with to meet the objectives of the Phase I Addendum, which may include, but are not limited to, the following:

- Sampling for lead in soil from lead-based paint: California Code of Regulations, title 22, section 69105.
- Sampling for OCPs in soil from termiticide application: California Code of Regulations, title 22, section 69106.
- Sampling for PCBs in soil from electrical transformers: California Code of Regulations, title 22, section 69107.
- DTSC Guidance for sampling for lead, OCPs, or PCBs in soil from these specific sources: *Interim Guidance, Evaluation of School Sites with Potential Soil*

Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers (Lead, OCPs, and PCBs Guidance) (DTSC 2006a). The most recent version of this guidance document should be used and is available on the DTSC School Site Evaluation web page at www.dtsc.ca.gov/Schools/index.cfm.

2.0 SITE DESCRIPTION

The site description should describe the physical setting of the site in relation to the surrounding area and include the following information:

- School site designation consistent with information submitted to CDE.
- Other site designations used historically.
- United States Environmental Protection Agency (U.S. EPA) identification number, if assigned.
- DTSC EnviroStor database number, if assigned.
- Street address or nearest cross streets, city or nearest community, county, state, zip code
- School district
- Size of the site (preferably in acres)
- Assessor's parcel number
- Township, range, section, and principal meridian
- Geographic coordinates (longitude and latitude)
- State Senate and Assembly districts
- Site and vicinity general characteristics: Climatic, topographic, geologic, hydrogeologic, and hydrologic.
- Current and historical uses of or operations on the site.
- Descriptions of improvements on the site.
- Current and historical uses of or operations on adjacent properties.

2.1 SITE HISTORY

The site history should be a summary based on the findings of the Phase I, including user provided information, records review, site inspections, and interviews. This should include business type, years of operation, prior land use, facility ownership/operators, property owners and surrounding land uses.

2.2 PREVIOUS ASSESSMENTS

This section of the report should include summaries of prior assessments or investigations, such as a Phase I report or other historical investigations. The documents should be adequately referenced to facilitate retrieval by another party. At a minimum, the summaries for prior assessments or investigations should include the following information:

- Site designation
- Location and legal description: Street address or nearest cross streets, city or nearest community, county, state, zip code, school district, size (preferably in

acres), assessor's parcel number, township, range, section, and principal meridian, geographic coordinates.
- Size of the site (preferably in acres)
- Purpose of the assessment or investigation
- Findings
- Conclusions and recommendations
- Review and approval by a regulatory agency

The area addressed in previous assessments should be correlated to the area of proposed school site to clearly demonstrate the spatial extent of each assessment and how it relates to the proposed school site. In some cases, additional figures showing the spatial extent of each assessment or investigation may be useful.

3.0 RECOGNIZED ENVIRONMENTAL CONDITIONS

This section should list the recognized environmental conditions identified in the Phase I. Consistent with California Code of Regulations, title 22, sections 69102, subsection (f), and 69104, subsection (f), the following recognized environmental conditions may be addressed in a Phase I Addendum:

- Lead-based paint
- Termiticide application
- Electrical transformers

3.1 CHEMICALS OF POTENTIAL CONCERN

List of chemicals of potential concern (COPCs) identified for the site. COPCs may include some or all of the following:

- Lead from lead-based paint
- OCPs from termiticide application
- PCBs from electrical transformers

4.0 SUMMARY OF SAMPLING ACTIVITIES

This section and related subsections of the report should clearly describe the activities conducted in sufficient detail to demonstrate compliance with applicable requirements and to permit reconstruction by another environmental assessor.

4.1 SAMPLING OBJECTIVES

The objectives of the sampling should be to evaluate the potential soil contamination by lead, OCPs, and or PCBs and determine if these levels pose a threat to human health. If site information indicates that other exposure pathways may be complete or the environment (non-human biota or habitats) may be impacted, a more detailed evaluation should be conducted in consultation with DTSC in a Preliminary Environmental Assessment (PEA). Sampling objectives should be consistent with the Lead, OCPs, and PCBs Guidance (DTSC 2006a).

4.2 SAMPLING APPROACH

Sampling for lead in soil from lead-based paint, OCPs in soil from termiticide application, and PCBs in soil from electrical transformers must be performed in accordance with California Code of Regulations, title 22, sections 69105, 69106, and 69107, respectively.

Additionally, the Lead, OCPs, and PCBs Guidance (DTSC 2006a) should be referenced when lead-based paint, termiticide application, or electrical transformers are suspected. The most recent version of this guidance document is available on the DTSC web page for Evaluating and Cleaning-Up School Sites at <http://www.dtsc.ca.gov/Schools/index.cfm>.

For each of the COPCs, identify the sampling strategy used:

- Lead: Pre-demolition, post demolition with foundation present, or post demolition with foundation removed or site graded.
- OCPs: Pre-demolition, post demolition with foundation present, or post demolition with foundation removed or site graded.
- PCBs: Pole or pad-mounted.

4.3 SAMPLING LOCATIONS AND RATIONALE

Sampling guidelines presented in the Lead, OCPs, and PCBs Guidance (DTSC 2006a) should be used to develop the sampling locations and rationale for sampling. A discussion of the rationale for sample locations and depths should be included in this section of the report. The rationale should include a discussion of visual observations used to place sampling locations. Include any site photographs in Appendix B. The sampling locations should be presented on a site plan as Figure 4. The site plan should

be of sufficient detail to clearly show sampling locations relative to the associated structure or transformer. Sampling locations, depths, designation, rationale, and analyses should be identified in Table 1.

4.4 SAMPLE COLLECTION

This section of the report should describe the step-by-step procedures of how each sample was collected. The procedures should be the step-by-step instructions used by field personnel to collect the samples and should be sufficiently detailed to allow re-creation by another environmental assessor. The description should demonstrate that the data gathered will meet the sampling objectives.

4.4.1 Sampling Equipment and Procedures

This section should describe all equipment used to obtain samples.

4.4.1.1 DECONTAMINATION

A description of equipment and personnel decontamination and disposal of materials should be provided. Anything affecting the possibility of cross-contamination should be included.

4.4.1.2 PREPARATION

A description of the methods used to homogenize, split, and composite samples should be provided.

4.4.2 Containers and Preservation

This section should describe the sample containers and type of pre-cleaning method used. Documentation that containers were certified clean by the suppliers should be included in an Appendix C. This section should also identify the preservatives used for the different analyses.

4.4.3 Packaging and Shipment

This section should describe the methods for packaging, labeling, marking and shipping the samples.

4.4.4 Documentation

A description of label with an example should be provided. A unique number system that positively identifies each sample and does not distinguish the quality control (QC) samples from other samples should be described.

There should be a discussion of field documentation to include field logs, photographs, and QC checklist or logs, and chain-of-custody forms. The specific types of entries to be made in the various logs should be stated.

4.5 SAMPLE ANALYSES

This section should identify the field and laboratory analyses performed on each sample or group of samples. Analyses for each sample should be added to Table 1. The description of analyses should include preparation and analytical methods, analytes, quantitation limits, holding times, and preservation. Quantitation limits should be less than the screening value used for comparison.

4.5.1 Field

This section should discuss field analyses, such as x-ray fluorescence (XRF), including the preparation and analytical method, analytes, quantitation limits, holding times, and preservation.

4.5.2 Laboratory

This section should discuss laboratory analyses, including the preparation and analytical method, analytes, quantitation limits, holding times, and preservation.

4.6 ANALYTICAL RESULTS

The following subsections should summarize the analytical results from both field and laboratory analysis. Data reports for field or laboratory analysis, including chain-of-custody documentation, should be consistent with the description provided in the Lead, OCPs, and PCBs Guidance (DTSC 2006a). Data reports for field analysis should be included in Appendix D and those for laboratory analysis should be included in Appendix E.

4.6.1 Lead

This section should include a discussion of the analytical results and a reference to a data summary table and figures.

4.6.2 Organochlorine Pesticides

This section should include a discussion of the analytical results and a reference to a data summary table and figures.

4.6.3 Polychlorinated Biphenyls

This section should include a discussion of the analytical results and a reference to a data summary table and figures.

4.7 INVESTIGATION DERIVED WASTE

This section of the report should describe the management and disposition of wastes generated during the investigation, including soil cuttings, personal protective equipment, decontamination water, etc. Justification for the management and disposition of wastes should also be provided and should be consistent with the U.S. EPA Guide to Management of Investigation-Derived Wastes (U.S. EPA 1992).

Copies of any disposal documentation, such as hazardous waste manifests or bill of lading for non-hazardous waste, should be provided in Appendix F to the report.

4.8 FIELD CONDITIONS

This section of the report should include a qualitative summary of soil conditions with appropriate description of lithologic changes or evidence of fill material within a designated area, and field variances from proposed work due to unforeseen site conditions or evaluation of raw data sets.

Daily field reports should be kept to document field activities and conditions. The daily field reports should include weather conditions (temperature, humidity, wind speed, wind direction, precipitation, etc.), description of sampling activities and observations, etc. Copies of daily field reports should be included in Appendix G.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The overall quality assurance and quality control (QA/QC) should ensure that sampling, field and laboratory chain-of custody, laboratory analyses, field and laboratory data measurements, and reporting activities provide data quality consistent with the intended use. As part of the project QA/QC evaluation, data validation should be performed for all submitted samples. Data quality should be defined by data quality indicators (accuracy, precision, method reporting limits, completeness, representativeness, and comparability). A summary of data validation should be included as Appendix H.

5.1 FIELD QC SAMPLES

This section should discuss the QC samples collected in the field consistent with the Lead, OCPs, and PCBs Guidance (DTSC 2006a).

5.2 LABORATORY QC SAMPLES

This section should discuss the QC samples utilized in the laboratory consistent with the Lead, OCPs, and PCBs Guidance (DTSC 2006a).

5.3 DATA VALIDATION

A qualified professional, such as a project manager, project QA/QC manager, or third-party QA/QC specialist should prepare a data validation memorandum for both field and laboratory analyses consistent with the following DTSC guidance:

- Lead, OCPs, and PCBs Guidance (DTSC 2006a)
- "Data Validation Memorandum, Summary of the Level II Data Validation for Advanced Technology Report ATV5796, dated April 25, 2006" (DTSC 2006b)

6.0 HEALTH AND SAFETY

This section of the report should describe the Health and Safety Plan (HASP) followed for the activities described herein. If x-ray fluorescence was used for lead sampling and analysis, qualification of the operator, standard operating procedures notes and compliance with radioactive safety requirements should be discussed in this section.

The Health and Safety Plan (HASP) should be included as Appendix C. DTSC is not charged with the enforcement of occupational health standards and is not limited by such standards requiring health and safety information. DTSC review is based upon authority provided by the Health and Safety Code, title 22, and the Code of Federal Regulations. See Appendix C for summary of relevant regulatory citations and DTSC policies and procedures that give DTSC the authority to require a HASP be developed, submitted, reviewed and corrected to DTSC standards. The HASP should generally follow *Draft Site Specific Health and Safety Plan Guidance Document For Site Assessment/Investigation, Site Mitigation Projects, Hazardous Waste Site Work Closure, Post Closure, and Operation and Maintenance Activities* (DTSC 2000). The most recent version of this guidance document should be used and is available on the DTSC web page at www.dtsc.ca.gov [Only include if the HASP Template is posted on the DTSC Web site accessible by the public. The template is currently only available on the DTSC Intranet. Check with Kathleen Yokota-Wahl for status of posting to public web site]. The site-specific HASP, at a minimum, should include the following information:

- Facility background.
- Key personnel, including Site Safety Officer, and responsibilities.
- Safety and health risk or hazard analysis for each site task and operation found in the workplan.
- Employee training assignments (Cal. Code Regs., tit. 8, sec. 5192, subd. (e) (Training)).
- Personal protective equipment (PPE) to be used by employees for each of the site tasks and operations being conducted as required by the PPE program (Cal. Code Regs., tit. 8, sec. 5192, subd. (g)).
- Medical surveillance requirements (Cal. Code Regs., tit. 8, sec. 5192, subd. (f) (Medical Surveillance)).
- Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment to be used.
- Site control measures (Cal. Code Regs., tit. 8, sec. 5192, subd. (d) (Site Control)).

- Decontamination procedures (Cal. Code Regs., tit. 8, sec. 5192, subd. (k) (Decontamination)).
- An emergency response plan for same and effective responses to emergencies, including the necessary PPE and other equipment (Cal. Code Regs., tit. 8, sec. 5192, subd. (k) (Decontamination)).
- Confined space entry procedures (Cal. Code Regs., art. 108, Confined Spaces).
- Spill containment program (Cal. Code Regs., tit. 8, sec. 5192, subd. (j) (Handling Drums and Containers)).
- Procedures for providing potable water and sanitary facilities to site personnel (Cal. Code Regs., tit. 8, sec. 5192, subd. (n) (Sanitation at Temporary Workplaces)).
- Safe drum and container handling procedures (Cal. Code Regs., tit. 8, sec. 5192, subd. (j) (Handling Drums and Containers)).
- Procedures to verify that adequate illumination is afforded site personnel (Cal. Code Regs., tit. 8, sec. 5192, subd. (n)).]

Procedures should be included to identify and minimize potential off-site or community impacts from the activities described herein.

7.0 DATA INTERPRETATION AND ASSESSMENT

The detected concentrations of lead in soil from lead-based paint, OCPs in soil from termiticide application, and PCBs in soil from electrical transformers should be compared to respective screening values to determine if further investigation is required. Screening values for lead, OCPs, and PCBs in soil from these specific sources is provided in the *Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers* (DTSC 2006a). The most recent version of this guidance document should be used and is available on the DTSC School Site Evaluation web page at www.dtsc.ca.gov/Schools/index.cfm.

These screening values are for initial assessment only and should not be construed as required removal or remedial levels. The screening values are intended to assist school districts in making recommendations in the Phase I Addendum. However, these are general guidelines and DTSC will make a determination based on site-specific information.

7.1 LEAD FROM LEAD-BASED PAINT

A summary of analytical results for lead in soil should be provided in a table. The table should clearly present the following information for each sample: sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units.

Concentrations of lead detected in soil should be compared to the current initial screening value for lead concentrations at proposed school sites specified in the most recent version of the Lead, OCPs, and PCBs Guidance (DTSC 2006a).

The screening lead level should be shown in the summary of analytical results table for lead in soil and any detected concentrations exceeding the screening level should be identified.

7.2 ORGANOCHLORINE PESTICIDES FROM TERMITICIDE APPLICATION

A summary of analytical results for OCPs in soil should be provided in a table. The table should clearly present the following information for each sample: sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units.

If elevated levels of any OCP are detected in soil, additional sample collection and analysis may be necessary to define the lateral and vertical extent of contamination. This should be conducted in a PEA.

Concentrations of OCPs detected in soil should be compared to the current initial screening value for OCP concentrations at proposed school sites in the most recent version of the DTSC Lead, OCPs, and PCBs Guidance (DTSC 2006a).

The screening OCPs level should be shown in the summary of analytical results table for OCPs in soil and any detected concentrations exceeding the screening level should be identified.

7.3 POLYCHLORINATED BIPHENYLS FROM ELECTRICAL TRANSFORMERS

A summary of analytical results for PCBs in soil should be provided in a table. The table should clearly present the following information for each sample: sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units.

Concentrations of PCBs detected in soil should be compared to the current initial screening value for PCB concentrations at proposed school sites in the most recent version of the DTSC Lead, OCPs, and PCBs Guidance (DTSC 2006a).

The screening PCBs level should be shown in the summary of analytical results table for PCBs in soil and any detected concentrations exceeding the screening level should be identified.

8.0 CONCLUSIONS AND RECOMMENDATIONS

This section of the report should include conclusions that summarize the evaluation of lead in soil from lead-based paint, OCPs in soil from termiticide application, and/or PCBs in soil from electrical transformers, and provides associated recommendations.

This section shall contain one of the following recommendations (Cal. Code Regs., tit. 22, § 69109):

(a) A further investigation of the site is not required. A Phase I Addendum that contains data from evaluation of lead, OPCs, or PCBs in soil may recommend that further investigation of the site is not required if all of the following apply:
  (1) The Phase I Addendum demonstrates that lead in soil from lead-based paint, OCPs in soil from termiticide application, and/or PCBs in soil from electrical transformers are the only potential sources of contamination at the site; and
  (2) concentrations of lead, OCPs, and/or PCBs in soil do not exceed concentrations determined by DTSC on a case-by-case basis to be protective of public health and the environment.

(b) A PEA is needed to determine one or more of the following:
  (1) If a release of hazardous material has occurred and, if so, the extent of the release.
  (2) If there is a threat of a release of hazardous materials.
  (3) If a naturally occurring hazardous material is present.

9.0 REFERENCES

The report shall include a references section to identify published referenced sources relied upon in conducting the Phase I Addendum and preparing the report. Each referenced source shall be adequately annotated to facilitate retrieval by another party.

American Society of Testing and Materials (ASTM). 2005. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* Designation E 1527. Approved on November 1, 2005.

Department of Toxic Substances Control (DTSC). 2006a. *Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers.* Revised June 9, 2006, non-substantive revisions made September 12, 2006.

DTSC. 2006b. Data Validation Memorandum, Summary of the Level II Data Validation for Advanced Technology Report ATV5796, dated April 25, 2006." May 2, 2006.

United State Environmental Protection Agency (U.S. EPA). 1992. *Guide to Management of Investigation-Derived Wastes, Quick Reference Fact Sheet.* Office of Solid Waste and Emergency Response. Publication 9345.3-03FS. January 1992.

10.0 SIGNATURE AND QUALIFICATIONS OF ENVIRONMENTAL ASSESSOR

The environmental assessor responsible for the Phase I shall sign the document and include the following information as proof of qualifications:

- Class II Registered Environmental Assessor (REA): REA Number, signature, and expiration date.
- Professional Engineer registered in the State of California (civil (including geotechnical and structural), electrical, and mechanical): License number, signature, seal or stamp, and expiration date (Bus. & Prof. Code, §§ 6735, 6735.3, and 6735.4).
- Professional Engineer registered in the State of California (agricultural, chemical, control system, corrosion, fire protection, industrial, manufacturing, metallurgical, nuclear, petroleum, or traffic): License number, signature, and optional seal or stamp.
- Professional Geologist registered in the State of California: License number, signature, seal or stamp, and expiration date (Bus. & Prof. Code, § 7835).
- Certified Engineering Geologist registered in the State of California: License Number signature, seal or stamp, and expiration date (Bus. & Prof. Code, § 7835).
- Licensed Hazardous Substance Contractor: Contractor's license number, HAZ (Hazardous Substance Removal) certification, signature, and expiration date.

In addition to the qualifications identified above, an environmental assessor must also possess at least three years of experience preparing Phase Is. Although the Education Code requires a minimum of two years of experience (Ed. Code § 17210, subsec. (b)), subsequent regulations (Cal. Code Regs., tit. 22, §§ 69104, subsec. (b) and 69103, subsec. (a)(1)) refer to ASTM Practice E 1527 (ASTM 2005) which requires three years of relevant experience for environmental professionals. ASTM Practice E 1527 (ASTM 2005) was prepared in conjunction with federal regulations for "all appropriate inquiries" that also requires an environmental professional to have three years of relevant experience (40 C.F.R. § 312.10(b)). As proof of qualifications, the number of years of relevant experience for the environmental assessor should be identified in this section.

Similar to ASTM Practice E 1527 (ASTM 2005) for Phase Is, this document should include the following statement of the environmental assessor(s) responsible for conducting the evaluation and preparing the Phase I Addendum:

- "[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of environmental assessor as defined in Education Code,

section 17210, subsection (b) and have the experience required by California Code of Regulations, sections 69104, subsection (b) and 69103, subsection (a)(1)."

In addition to qualifications and experience required to work on school sites, requirements exist for specific work that may be conducted during environmental assessments, investigations, or cleanup of school sites:

- All engineering work shall be conducted in compliance with the Professional Engineers Act (Bus. & Prof. Code, § 6700 et seq.) and Rules of the Board for Professional Engineers and Land Surveyors (Cal. Code Regs., tit. 16, § 400 et seq.).
- All geologic work shall be conducted in compliance with the Geologist and Geophysicist Act (Bus. & Prof. Code, § 7800 et seq.) and Rules of the Board for Geologists and Geophysicists (Cal. Code Regs., tit. 16, § 3000 et seq.).
- Contractors engaging in removal or remedial actions must be a licensed hazardous substance contractor with the Contractors' State License Board (Bus. & Prof. Code § 7058.7).

FIGURE 1 SITE LOCATION MAP

This map should include a north area, be to scale, and show the general location of the site relative to its surrounding area, including major highways, surface water bodies, land use, sensitive populations, and critical habitats. The site location should be clearly indicated.

FIGURE 2 SITE VICINITY MAP

This map should include a north arrow, be to scale, and be of sufficient detail to show adjacent features (roads, surface water bodies, land use, sensitive populations, critical habitats, utility easements) and adjacent property uses. The site boundaries should be clearly indicated.

FIGURE 3 SITE PLAN

This plan should include a north arrow, be to scale, and be of sufficient detail to show significant site features, including boundaries, land use, paved areas, improvements (structures, roads, sewage system, storm drain system), drainage patterns, current use of the site, operational areas, and recognized environmental conditions. The site plan should provide sufficient detail and be of scale to facilitate placement of future sampling locations, if necessary, so that the correlation between sampling locations and recognized environmental conditions is clear. For larger or more complicated sites, additional figures will be necessary to show sufficient detail.

FIGURE 4 SAMPLING LOCATIONS AND RESULTS FOR LEAD IN SOIL

This figure should show the samples collected and the associated analytical results for lead in soil on a site plan. The figure should clearly show the sampling locations relative to the areas of recognized environmental conditions. Sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units should be clearly presented.

FIGURE 5 SAMPLING LOCATIONS AND RESULTS FOR ORGANOCHLORINE PESTICIDES IN SOIL

This figure should show the samples collected and the associated analytical results for organochlorine pesticides in soil on a site plan. The figure should clearly show the sampling locations relative to the areas of recognized environmental conditions. Sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units should be clearly presented.

FIGURE 6 SAMPLING LOCATIONS AND RESULTS FOR POLYCHLORINATED BIPHENYLS IN SOIL

This figure should show the samples collected and the associated analytical results for polychlorinated biphenyls in soil on a site plan. The figure should clearly show the sampling locations relative to the areas of recognized environmental conditions. Sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units should be clearly presented.

TABLE 1 SUMMARY OF SAMPLING LOCATIONS AND RATIONALE

This table should provide a summary of the sampling locations, depths, designation, and rationale, and associated analyses. An example is provided as Table 1.

TABLE 2 SUMMARY OF ANALYTICAL RESULTS FOR LEAD IN SOIL

This table should provide a summary of the analytical results for lead in soil. The sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units should be clearly presented. The table should also compare results to the screening level for lead and identify the detected concentrations exceeding the screening level. Any samples with results flagged in the laboratory data reports should be noted. An example is provided is Table 2.

TABLE 3 SUMMARY OF ANALYTICAL RESULTS FOR ORGANOCHLORINE PESTICIDES IN SOIL

This table should provide a summary of the analytical results for OCPs in soil. The sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units should be clearly presented. The table should also compare results to the screening level for lead and identify the detected concentrations exceeding the screening level. Any samples with results flagged in the laboratory data reports should be noted. An example is provided is Table 2.

TABLE 4 SUMMARY OF ANALYTICAL RESULTS FOR POLYCHLORINATED BIPHENYLS IN SOIL

This table should provide a summary of the analytical results for PCBs in soil. The sample designation, location, depth, matrix, date, analytical method, analytes, detected concentration, quantitation limit, and concentration units should be clearly presented. The table should also compare results to the screening level for lead and identify the detected concentrations exceeding the screening level. Any samples with results flagged in the laboratory data reports should be noted. An example is provided is Table 2.

TABLE 1
SAMPLING LOCATIONS AND RATIONALE
SITE DESIGNATION
CITY

SAMPLING LOCATION	SAMPLE DEPTH	SAMPLE DESIGNATION	RATIONALE	ANALYSES	COMMENTS
Sampling location should be designated by a unique identifier and should correlate to sampling locations shown on figures.	Depth below ground surface, in feet or inches.	Sample designation should be a unique identifier. This designation should correlate to sample results shown on figures.	Rationale for sampling location (relative to a recognized environmental condition) and depth (based on release or fate and transport mechanism).	Analyses should correlate to the rationale.	Sample preservation, hold, discrete, composite, etc.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SITE DESIGNATION
CITY

Sample Designation								
Sampling Location								
Sample Depth (ft. bgs)								
Date Sampled								
Matrix								
Identify analytical method	**Screening Level**	**Units**	**Concentrations** Detected concentrations: include value and any data flags, highlight concentrations exceeding the screening value Chemicals not detected: ND (<quantitation limit)					
List analytes down this column	Screening levels corresponding to analytes	Units for results and screening level						

Abbreviations and Acronyms
ft. bgs feet below ground surface

APPENDIX A DTSC PHASE I DETERMINATION LETTER

If DTSC provided a determination letter that lead-based paint, termiticide use or electrical transformers are the only recognized environmental conditions and further investigation is required based on review and approval of a Phase I report, it should be provided here and referenced in the text.

APPENDIX B SITE PHOTOGRAPHS

Site photographs – including the date the photograph was taken, location description sufficient to be recreated by another party, and a description of the subject of the photograph

APPENDIX C CONTAINER CERTIFICATION

Documentation that containers were certified clean by the suppliers should be included.

APPENDIX D X-RAY FLUORESCENCE DATA REPORTS

Copies of XRF data reports should be included and referenced in the text.

APPENDIX E LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Laboratory certified analytical reports and chain-of-custody documentation should be included and referenced in the text.

APPENDIX F WASTE MANAGEMENT DOCUMENTATION

Uniform hazardous waste manifests or bill of lading for investigation-derived waste should be included and referenced in the text.

APPENDIX G DAILY FIELD REPORTS

Daily Field Reports documenting field activities and conditions should be included and referenced in the text.

APPENDIX H DATA VALIDATION MEMORANDUM

A data validation memorandum for both field and laboratory analyses should be included and referenced in the text.

APPENDIX I HEALTH AND SAFETY PLAN

The HASP should generally follow *Draft Site Specific Health and Safety Plan Guidance Document For Site Assessment/Investigation, Site Mitigation Projects, Hazardous*

Waste Site Work Closure, Post Closure, and Operation and Maintenance Activities (DTSC 2000). The most recent version of this guidance document should be used and is available on the DTSC web page at www.dtsc.ca.gov [Only include if the HASP Template is posted on the DTSC Web site accessible by the public. The template is currently only available on the DTSC Intranet. Check with Kathleen Yokota-Wahl for status of posting to public web site].

DTSC is not charged with the enforcement of occupational health standards and is not limited by such standards requiring health and safety information. DTSC review is based upon authority provided by the Health and Safety Code, title 22, and the Code of Federal Regulations. The authority to require a HASP be developed, submitted, reviewed and corrected to DTSC standards is found in the following state and federal regulations as well as official DTSC policies and procedures:

- Health and Safety Code, section 25356.1, subdivision (d) - Remedial Action Plans (RAPs) must conform to the provisions of 40 Code of Federal Regulations part 300.400 et seq., with emphasis on 40 Code of Federal Regulations part 300.430, which requires a site specific health and safety plan which, at a minimum, should meet the requirements of the 29 Code of Federal Regulations part 1910.120.
- Health and Safety Code, section 25187.1, subdivision (a) - Grants DTSC the authority to issue orders to ascertain the nature and extent of hazards to human health or the environment.
- Health and Safety Code, section 25358.3, subdivision (b)(1) - Grants DTSC the authority to acquire information necessary to determine the extent of dangers present at a site.
- Health and Safety Code, section 25200.1.5, subdivisions (g)(3)(A) through (g)(3)(E) - Requires site operational conditions which includes physical and chemical hazards, potential accidents and actions taken to prevent them, training levels and contingency planning to be identified.
- Health and Safety Code, section 25356.1, subdivisions (h)(3)(A) through (h)(3)(D) - Allows DTSC to waive the requirements of a RAP if an approved health and safety plan is provided, along with the satisfactory completion of remaining requirements.
- 40 Code of Federal Regulations part 300.430(b)(6) - All remedial investigations require the preparation of a site-specific health and safety plan.
- Health and Safety Code, section 25355.5, subdivision (a)(1)(B) - Grants DTSC the authority to issue an order requiring a RAP be submitted for DTSC approval.
- California Code of Regulations, title 8, section 5192 - Hazardous Waste Operations and Emergency Response: Details specific requirements for development of a HASP.
- 29 Code of Federal Regulations part 1910.120. Requires all hazardous materials workers to be trained and that a HASP and contingency plan be prepared.
- 40 Code of Federal Regulations part 311.1 - Provides all employees on hazardous waste sites are covered by a HASP.

- DTSC Policy and Procedure #86-20 (superceded by EO 93-009)- Remedial Action Orders and "enforceable" agreements: require a health and safety plan be submitted as part of the RI/FS workplan.
- DTSC Policy and Procedure #87-9 Walk-in Business: Work plans developed for walk-in business require site specific HASP be included.
- DTSC EO #93-009 Imminent and/or Substantial Endangerment Orders: requires the preparation of a site-specific HASP prior to the start of work.
- DTSC P/P 87-2 - The RAP process: requires that the health and safety risks at the site be identified.